

CLAIM AMENDMENTS

1-13. (canceled)

14. (currently amended): A method to identify an antidote for a toxic compound which method comprises:

observing ~~[[the]]~~ an intracellular localization pattern of at least one signal transduction protein in the presence and absence of the toxic compound, said compound supplied at a concentration that is toxic so as to ascertain the intracellular localization pattern under toxic conditions, defined as ~~[[{]]~~ in the presence of toxic compound, ~~[[{]]~~ and under normal conditions, defined as ~~[[{]]~~ in the absence of toxic compound ~~[[{]]~~;

observing the intracellular localization pattern of said at least one signal transduction protein under toxic conditions in the presence of ~~both the toxic compound and a compound that is a~~ candidate for an antidote;

comparing the intracellular localization pattern under toxic conditions in the presence of the compound that is a candidate for an antidote to the intracellular localization patterns under toxic and normal conditions;

whereby ~~a antidote~~ said compound that is a candidate for an antidote whose presence under toxic conditions restores the intracellular localization pattern to ~~[[a]]~~ an intracellular localization pattern more closely resembling that under normal conditions is identified as an antidote to the toxic compound;

wherein ~~at least one of the following pertains:~~ said intracellular localization pattern is constructed by determining the presence, absence or level of said signal transduction protein(s) at at least three of nuclear, perinuclear, diffuse cytoplasmic, cytoplasmic fibril-associated and membrane-associated locations; ~~or~~

~~said observing is by microscopy; or~~

~~said pattern is observed in fixed cells.~~

15. (previously presented): The method of claim 14 wherein the intracellular localization pattern is of at least two signal transduction proteins.

16. (previously presented): The method of claim 15 wherein the intracellular localization pattern is of a multiplicity of signal transduction proteins.

17. (currently amended): A method to identify a compound potentially useful to treat a disease condition in which inhibition of a cellular function ameliorates said disease condition, which method comprises

observing ~~[[the]]~~ an intracellular localization pattern of at least one signal transduction protein in the presence and the absence of a candidate compound;

observing the intracellular localization pattern of said signal transduction protein in the presence of an inhibitor known to inhibit said cellular function;

comparing the observed intracellular localization patterns,

whereby said candidate compound is identified as potentially useful in treating the disease condition if the intracellular localization pattern observed in the presence of the candidate compound more closely resembles ~~the pattern~~ that observed in the presence of a known inhibitor than does the intracellular localization pattern in the absence of the candidate compound;

wherein ~~at least one of the following pertains:~~ said intracellular localization pattern is constructed by determining the presence, absence or level of said signal transduction protein(s) at at least three of nuclear, perinuclear, diffuse cytoplasmic, cytoplasmic fibril-associated and membrane-associated locations; ~~or~~

~~said observing is by microscopy; or~~

~~said pattern is observed in fixed cells.~~

18. (canceled)

19. (currently amended): A method to identify a therapeutic protocol potentially effective for the treatment of a disease condition which method comprises

providing an intracellular localization profile of a multiplicity of signal transduction proteins characteristic of said disease condition;

providing an intracellular localization profile of a multiplicity of signal transduction proteins characteristic of normal cells;

administering said protocol to cells or tissues exhibiting said profile characteristic of the disease condition; and

observing the effect of said therapeutic protocol on said profile, whereby a therapeutic protocol which results in conversion of said profile to a profile more closely resembling that of normal cells identifies said protocol as a potentially effective protocol;

~~wherein at least one of the following pertains:~~ said profile is constructed by determining the presence, absence or level of said signal transduction protein(s) at at least three of nuclear, perinuclear, diffuse cytoplasmic, cytoplasmic fibril-associated and membrane-associated locations; ~~or~~

~~said observing is by microscopy; or~~

~~said profile is observed in fixed cells.~~

20. (canceled)

21. (previously presented): The method of claim 17, wherein the intracellular localization pattern is of at least two signal transduction proteins.

22. (previously presented): The method of claim 21, wherein the intracellular localization pattern is of a multiplicity of signal transduction proteins.

23-25. (canceled)

26. (previously presented): The method of claim 14, wherein said observing is by microscopy.

27. (previously presented): The method of claim 17, wherein said observing is by microscopy.

28. (previously presented): The method of claim 19, wherein said observing is by microscopy.

29. (previously presented): The method of claim 14, wherein the localization pattern is observed in fixed cells.

30. (previously presented): The method of claim 17, wherein the localization pattern is observed in fixed cells.

31. (previously presented): The method of claim 19, wherein the localization profile is observed in fixed cells.